Remarks

This Amendment is filed in response to the Office Action of July 22, 2009 and is intended to be a complete response to all issues raised. Claims 1 - 11 remain in the application and all of claims 1 – 11 are currently amended. As will be apparent, the amendments are principally as to matters of form, are intended to adopt current American English spelling (e.g., "mold" for "mould", and its variants), to adopt U.S. claim practice norms, and to clarify the relationship of the respective elements recited in the apparatus and the process claims.

For the Examiner's convenience, a clean copy of the claims as amended is attached as a Supplement to this Amendment.

The amendments to claims 1 and 8 also address the rejection under 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of that ground of rejection is respectfully requested.

The applicants also appreciate the Examiner's acknowledgement that as a result of the prior explanation of the device and its method of operation, the claims were distinguished over the art previously applied.

Since no new matter is entered and the proposed amendments relate only to matters of form, their prompt entry is respectfully requested.

The Amended Claims are Patentably Distinguishable Over the Combined Disclosures of the Cited References

Applicants respectfully submit that a careful analysis of the disclosures of the prior art supports the conclusion that the amended claims define patentably distinguishable subject matter.

1. The Domodossola apparatus is of limited relevance

Domodossola discloses a molding apparatus that includes a mechanism 34 for unloading the molded products. The apparatus includes an injection mold formed by two half-mold sections, the first section being "a stationary platen 12" and the second section (18, 20) being supported by an index turret block 16.

The index turret block 16 is capable of rotation about the axis 38 and is able to move horizontally towards the stationary platen 12. As noted above, the index turret block 16 includes two opposing half-molds with respect to axis 38.

The unloading mechanism 34 includes a turret block that can rotate about an axis parallel to axis 38 that translates like the index turret block 16 in order for the index turret block 16 to accomplish its translational movement.

Additionally, turret block 34 includes tubes 32 on the two opposing faces. The products are molded between stationary platen mold section 12 and mold half-sections 18 or 20; the index turret block 16 then translates horizontally and simultaneously rotates 180 degrees.

The turret block 34 directs compressed air towards the products, then rotates 90 degrees and with the aid of the vacuum retains the molded products; after a further 270 degree rotation, the products drop vertically under the force of gravity.

In support of this analysis of the functioning of the Domodossola apparatus, we respectfully draw the Examiner's attention to Fig. 2A, where the products are shown falling vertically under the effect of gravity. Since the direction of the falling products necessarily

indicates the vertical axis, the translations of the index turret block 16 and the turret block 34 are necessarily in the horizontal plane.

The above interpretation of the figures is also supported by the following description:

> "*Alternatively, each receiving tube 32 may be provided with means for blowing a cooling fluid, such as air, about exterior surfaces of the molded parts. After a sufficient period of cooling has passed, the molded parts 28 are ejected from the tubes 32, preferably by shutting off the vacuum while the tubes 32 are in a substantially vertical orientation, and transferred to another location for storage or further treatment.*"

The vertical orientation of the products is shown in Fig. 7.

Based on the above analysis of the disclosure, the apparatus disclosed in Domodossola comprises mold parts, one stationary/motionless, the other able to rotate and translate horizontally; the unloading device (turret block 16) coincides with the cooling device and is able to translate horizontally.

2. The Van Malen Disclosure Does Not Disclose the Limitations of the Amended Claims

Van Manen discloses a molding apparatus that, in relevant part, includes:

a. mold parts 5, 5' moving towards and away from each other horizontally, and

b. robot 8 having a rotary rotor with four arms 9-12 of telescoping design.

The telescoping arms can move between a retracted position when the mold parts 5, 5' are closed and an extended position for extracting the molded products from the mold parts.

In the retracted position, the arms are able to rotate as shown in Fig 3.

Therefore, the unloading mechanism (arms 8-12) is equivalent to the cooling device, and similarly to the Domodossola apparatus, is able to translate horizontally.

A pull-out tool extracts the molded products from the arms 8 – 12 in a downward direction by moving up and down under the influence of vertical cylinders 39.

3. The Coran Disclosure Also Lacks Key Limitations of the Amended Claims

Coran discloses an apparatus that, in relative part includes:

a. a collection and translation element 2 for extracting fresh molded products from a mold device, and that is able to move between an advanced-extraction position and a retracted position, where the products are released and allowed to drop vertically; and

b. a revolving turret 3, which is only able to rotate about a horizontal axis.

Applicants' Claims Are Patentably Distinguishable Over the Prior Art

The apparatus of the amended claims includes at least the following limitations which are not found in, or suggested by the art of record:

a. mold parts 1, 2 moving towards and away from each other vertically;

b. an extraction arm 3 that translates only between a first position inside the open mold and a second position outside of the half-molds;

c. a revolving turret 6 rotatable around an horizontal axis (X) and that is displaced vertically between a first upper position under the extraction arm and a second lower position; and

d. an extraction table situated beneath the second lower position of the turret 6 for receiving the molded products 5.

Notably, none of the cited references discloses a revolving turret that translates vertically.

Moreover, both Domodossola and Van Manen disclose apparatus in which the unloading device (turret block 16 and robot 8, respectively) also serve or function as the cooling device. We respectfully submit that there is no evidence in the record that one of ordinary skill in the art would be motivated to combine the specific selected features of Coran's machine with those of Domodossola and Van Manen to complete the assembly of applicants' claimed device and to perform the functions of applicants' device in the specific step-wise manner of the amended process claims.

Of course, if one of ordinary skill in the art combines Coran with Van Manen by adding to the Coran's machine a pull-out tool, he will obtain a different machine, where the distance between the collection and translation element 2 and the revolving turret 3 remain unchanged.

The particularly beneficial result achieved by the apparatus and process of the applicants' amended claims is a reduction in distance that the molded products fall between the extraction arm 3 and the turret 6, and between the turret 6 and the extraction table, by extending the cooling time and avoiding the risk of product damage due to the collision of the product during its vertical falling time.

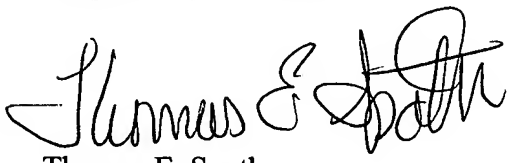
Conclusion

The above amendments further clarify the subject matter claimed, and distinguish the claimed subject matter from the prior art. Favorable reconsideration and withdrawal of the prior grounds of rejection are respectfully requested.

Petition for Extension of Time

This Amendment is being submitted with a Petition and a check in payment of a three-month extension fee.

Respectfully submitted,



Thomas E. Spath
Attorney for Applicant
Reg. No. 25,928

ABELMAN, FRAYNE & SCHWAB
666 Third Ave., 10th Floor
New York, NY 10017-5621
Tele: (212) 949-9022
Fax: (212) 949-9190